frequency characteristic is determined and stored. Next filter coefficients for a pre-emphasis filter are designed based upon the stored inverse attenuation-versus-frequency characteristic. The transmitted signal is pre-emphasized so that the combination of the transmission medium and the pre-emphasis filter provide a substantially flat attenuation-versus-frequency curve. At initial system setup or other significant change in the VDSL line, forward and reverse carrier frequencies are selected that have a high probability of being free of radio frequency interference (RFI).

The Examiner states that Salinger teaches a method of identifying a signal type. Applicants submit that this is clearly erroneous as Salinger merely teaches an adaptive pre-emphasis technique without identifying in any way what the signal type is – the attenuation-versus-frequency characteristic does not identify a signal type. Further the determining of the presence of RFI during setup does not identify the signal type of the RFI.

The Examiner states that Salinger selects a signal of interest from a displayed spectral waveform for a specified range of frequencies. Applicants submit that Salinger does not provide a spectral waveform display, and therefore cannot select a signal of interest from a display. In Salinger the spectrum analyzer measures the power spectrum across the entire VDSL band and identifies all frequency bins with power level more than a specified amount above the noise floor in the absence of a data signal to determine upper and lower cutoff frequencies of each RFI signal that may exist – this does not equate to selecting a signal of interest from a displayed spectrum.

The Examiner also states that Salinger processes data representing the signal of interest to ascertain characteristics of the signal of interest. Applicants submit that Salinger determines the cutoff frequencies of each RFI signal, but does not really determine the characteristics of the RFI signal.

The Examiner then states that Salinger determines an identification of the signal type from the characteristics of the signal of interest. Applicants submit that Salinger does nothing more than identify that there exists an interfering signal, but there is no indication that Salinger determines what type of signal the RFI is.

Regarding claim 2 the Examiner states that Salinger teaches that the signal type determining step includes the step of comparing the frequency of the signal of interest with a database of spectral assignments for a plurality of known signals to identify the signal type. Applicants submit that Salinger merely transmits the data about the RFI over the opposite transmission path where it is received, decoded and extracted and acknowledged, but Salinger is completely silent about identifying the type of signal the RFI is and does not mention a comparison with a database of spectral assignments of known signals.

Finally regarding claim 3 the Examiner states that Salinger teaches the processing step including the step of estimating from the data an occupied bandwidth for the signal of interest as one of the characteristics for input to the determining step. Applicants submit that Salinger merely teaches that data (as opposed to the RFI) is decoded to recover the payload, which is then distributed to the various subscriber terminal devices. There is nothing in Salinger that performs any estimating of an occupied bandwidth.
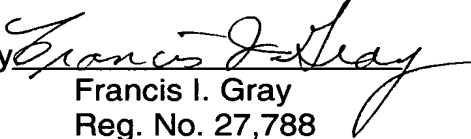
Therefore none of the elements recited by Applicants in claims 1-3 is either taught or suggested by Salinger. Thus claims 1-3 are deemed to be allowable as being neither anticipated nor rendered obvious to one of ordinary skill in the art by Salinger.

In view of the foregoing remarks allowance of claims 1-3 together with dependent claims 4 and 5 is urged, and such action and the issuance of this case together with already allowed claim 6 are requested.

Respectfully submitted,

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